

## Patent Assignment Abstract of Title

**Total Assignments: 1****Application #:** 10072804**Filing Dt:** 02/08/2002**Patent #:** NONE**Issue Dt:****PCT #:** NONE**Publication #:** NONE**Pub Dt:****Inventors:** Youichirou Sugino, Eiji Hamamoto, Seiichi Kusumoto, Hisashi Mihara, Senri Kondou, Kazuki Tsuchimoto**Title:** Polarizing plate and liquid crystal display using the same**Assignment: 1****Reel/Frame:** 012837/0903 **Received:** 05/02/2002 **Recorded:** 04/23/2002 **Mailed:** 06/28/2002 **Pages:** 4**Conveyance:** ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).**Assignors:** SUGINO, YOUICHIROU**Exec Dt:** 02/26/2002HAMAMOTO, EIJI**Exec Dt:** 02/26/2002KUSUMOTO, SEIICHI**Exec Dt:** 02/26/2002MIHARA, HISASHI**Exec Dt:** 02/26/2002KONDOU, SENRI**Exec Dt:** 02/26/2002TSUCHIMOTO, KAZUKI**Exec Dt:** 02/26/2002**Assignee:** NITTO DENKO CORPORATION

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L Number	Hits	Search Text	DB	Time stamp
1	5	sugino-youichirou.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:51
2	41	hamamoto-eiji.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:51
3	48	kusumoto-seiichi.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:51
4	3	kondou-senri.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:51
5	9	tsuchimoto-kazuki.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:51
6	60	sugino-youichirou.in. hamamoto-eiji.in. kusumoto-seiichi.in. kondou-senri.in. tsuchimoto-kazuki.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:51
7	122164	polariz\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:52
8	390874	moisture	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:52
9	152896	permeability	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:52
10	63	polariz\$3 same moisture same permeability	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:52
11	1421	349/96.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:52
12	7	(polariz\$3 same moisture same permeability) and 349/96.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 09:59
13	6	(sugino-youichirou.in. hamamoto-eiji.in. kusumoto-seiichi.in. kondou-senri.in. tsuchimoto-kazuki.in.) and 349/96.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:01
14	455229	thermoplastic thermosetting	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:01

15	134481	reflector transflector	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:01
16	283811	compensator retarder compensation retardation quarter-wave phase-plate	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:02
17	2939351	temperature	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:03
18	189137	humidity	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:11
19	1	(polariz\$3 same moisture same permeability) same (thermoplastic thermosetting)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:17
20	375	359/485.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:17
21	368	359/507.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:17
22	215	359/512.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:17
23	3	(polariz\$3 same moisture same permeability) and (reflector transflector) and (compensator retarder compensation retardation quarter-wave phase-plate)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:18
24	1	(polariz\$3 same moisture same permeability) and 359/485.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:18
25	0	(polariz\$3 same moisture same permeability) and 359/507.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:18
26	0	(polariz\$3 same moisture same permeability) and 359/512.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:19
27	459	polariz\$3 same temperature same humidity	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:19
28	3936	uniaxial\$3 near5 stretch\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/29 10:20

29	15	(polariz\$3 same temperature same humidity) same (uniaxial\$3 near5 stretch\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/29 10:25
30	26136	change near10 dimension	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/29 10:25
31	0	(change near10 dimension) near10 (uniaxial\$3 near5 stretch\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/29 10:26
32	2	(change near10 dimension) same (uniaxial\$3 near5 stretch\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/29 10:26
33	112	polariz\$3 same (change near10 dimension)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/29 10:26
34	23	temperature same humidity same (polariz\$3 same (change near10 dimension))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/29 10:27

PAT-NO: JP360083903A

DOCUMENT-IDENTIFIER: JP 60083903 A

TITLE: POLARIZING ELEMENT AND  
ELECTRO-OPTICAL LIQUID CRYSTAL  
DEVICE USING IT

PUBN-DATE: May 13, 1985

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APPL-NO: JP58190989

APPL-DATE: October 14, 1983

INT-CL (IPC): G02B005/30, G02F001/133

US-CL-CURRENT: 349/96, 349/122 , 349/FOR.114 ,  
349/FOR.119

ABSTRACT:

PURPOSE: To obtain a polarizing element having high reliability and maintaining its polarizing power even in environment at high humidity and an electro-optical liq. crystal device using the polarizing element by holding a polarizing layer of polyvinyl alcohol contg. iodine between two protective films and by tightly sealing the peripheral parts with a material having low moisture permeability.

CONSTITUTION: A polarizing layer 2 of polyvinyl alcohol contg. iodine is held between two protective films 1, 1' each having  $\geq 100\mu\text{m}$  thickness. The films 1, 1' are made of a polymer having  $\leq 100\text{g.0.1mm/m}^2\cdot 24\text{hr}$  coefft. of moisture permeation at  $25^\circ\text{C}$  such as polyethylene terephthalate or fluororesin. A tightly sealing layer of epoxy resin 3 having low moisture permeability is formed around the films 1, 1', or the films 1, 1' are entirely wrapped with a polyamide film 4. Thus, a polarizing element whose polarizing power is not deteriorated or lost by moisture is obtd. When a liq. crystal display device is manufacture by using the

polarizing element, the moisture  
resistance is improved.

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3	INZZ	temperature	unrestricted	1041226	<a href="#">show titles</a>
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